

MONTECITO RANCH

APPENDIX P

FIRE PROTECTION PLAN

for the

DRAFT ENVIRONMENTAL IMPACT REPORT

SP01-001; TM 5250RPL⁶; P04-045;

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FIRE PROTECTION PLAN
FOR
MONTECITO RANCH SUBDIVISION
GPA 04-013
R04-22 P04-045

PREPARED FOR:

David Davis
Montecito Ranch
402 W. Broadway, Suite 1320
San Diego, CA 92101-3542

PREPARED BY:

Robin Church
RC Biological Consulting, Inc.
4215 Spring Street, Suite 321
La Mesa, CA 91941
(619) 463-1072

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1.0 INTRODUCTION

The general project location is in the central section of San Diego County within the Community of Ramona (Figure 1). The proposed project site is approximately one mile northwest of the Ramona Town Center. State Route (SR) 78 borders the northern site boundary, while Montecito Way extends southerly from the southernmost site boundary. Cedar Street and Summer Glen Road also are adjacent to the southern site boundary while Ash Street is adjacent to the eastern boundary (Figure 2). Structural and Wildland fire protection is provided to the project area by the Ramona Fire Department. In addition it is located within a State Responsibility Area (Figure 3).

The Proposed Project would include the development of a rural residential community consisting of 417 single-family residential units on lots ranging in size from approximately 0.5 to 1.8 acres. The Project is composed of two separate units. Unit 1 would consist of 243 single-family residential units and Unit 2 would include 174 single-family residential units. Both Units 1 and 2 would be in various stages of grading/construction at the same time. The Project would dedicate land for various public improvements including a historic park site, local park site (fully developed), charter high school site, and open space. The northern portion of the historic park site includes the historic Montecito Ranch House, which would be renovated by the Proposed Project. The southern portion of the historic park site would include equestrian staging area, as well as act as an overflow parking area for the parks and school sites

The Proposed Project includes two wastewater management options. Wastewater Management Option 1, Off-site Sewer Connection, would include the extension of a sewer main off-site to connect to the Santa Maria Wastewater Treatment Plant (WTP). Wastewater Management Option 2 is an on-site wastewater reclamation facility (WRF) to treat all on-site wastewater and utilize the reclaimed water to irrigate on-site public landscaped areas, as well as the private Homeowners' Association areas. Option 1 would result in a total of 573.8 acres of dedicated open space within the Project site and Option 2 would result in 549.1 acres of dedicated open space due to the space requirements associated with the WRF. The Project also includes off-site roadway and water improvements to support the SPA development.

The overall objective of the Project is to provide an environmentally sensitive, residential community compatible with the rural character of the surrounding area while preserving existing natural open space (including the Ramona Grasslands), landforms, and topography. A 220.5-acre biological open space area has been set aside in the southwestern portion of the SPA property. Approximately 353.3 additional acres of the site would be designated as open space under Wastewater Management Option 1 (328.6 acres under Option 2), the majority of which would serve as additional biological open space. Following Project implementation, a total of 573.8 acres of open space (61.2 percent of the site), including 558.2 acres of biological preserve, would exist within the SPA boundaries under Option 1. Option 2 would reduce the biological preserve by 24.7 acres. The open space areas would include 11.1 acres (3.8 miles) of proposed equestrian/pedestrian trails. Development and brush management areas would not be

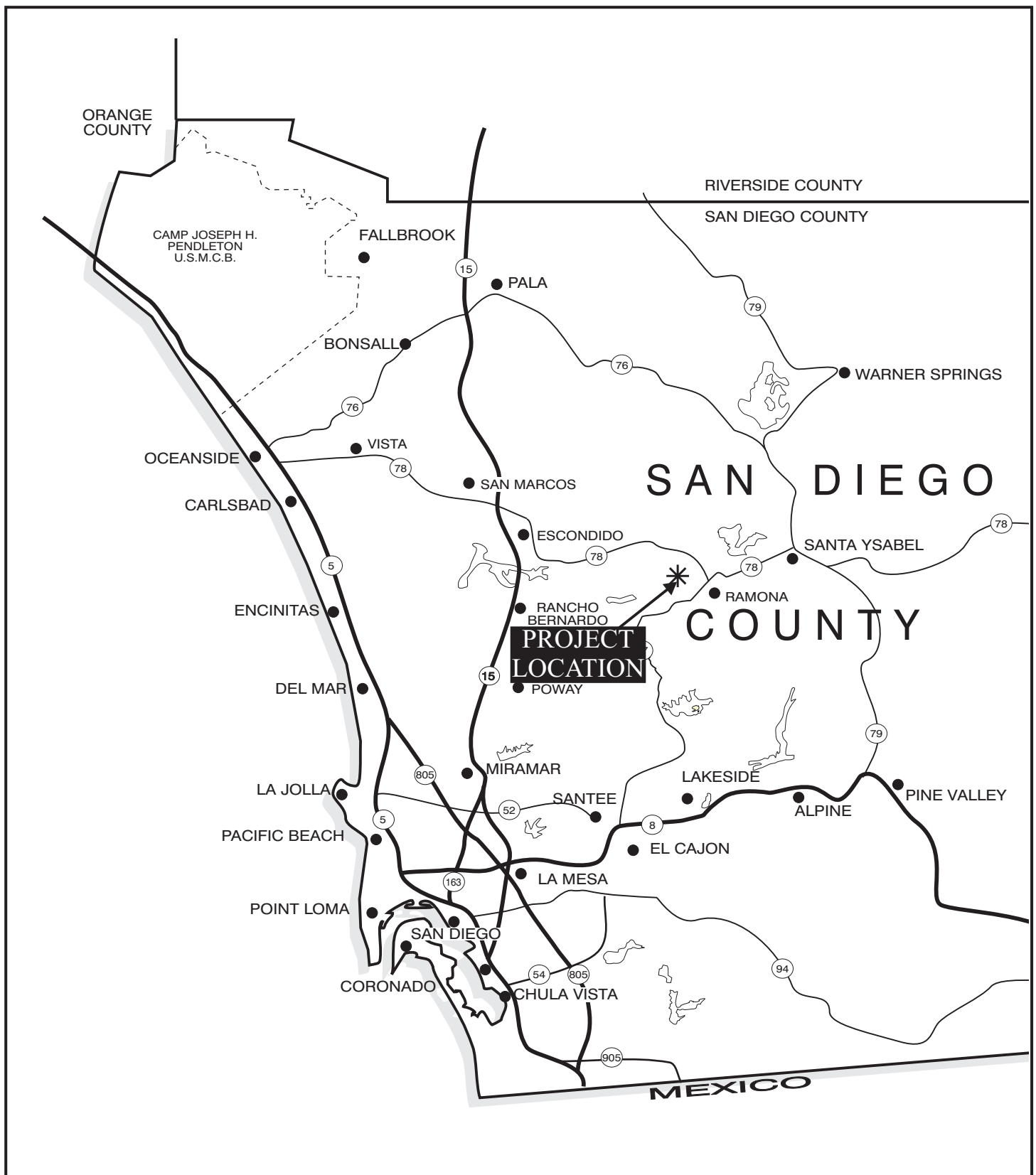
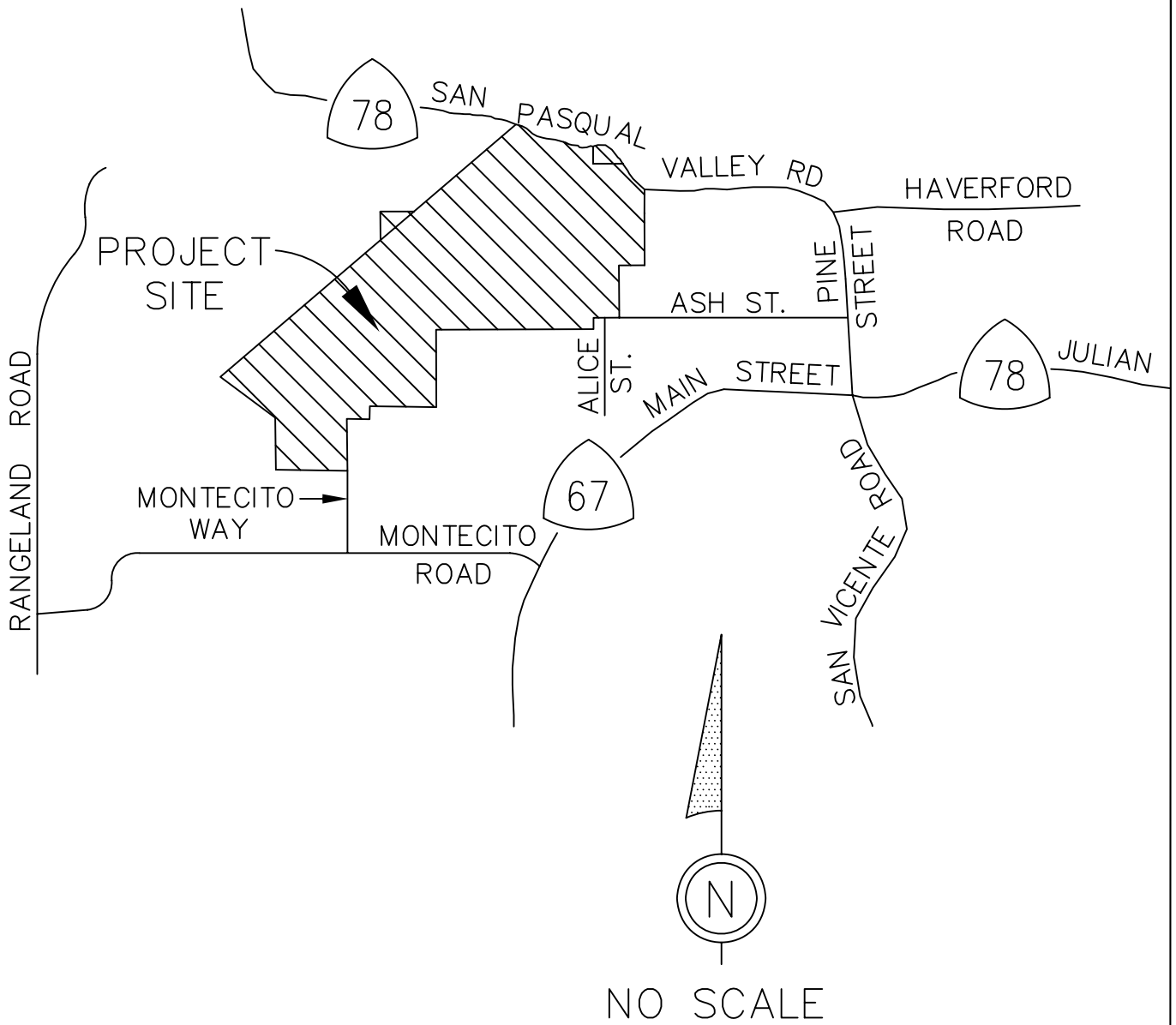
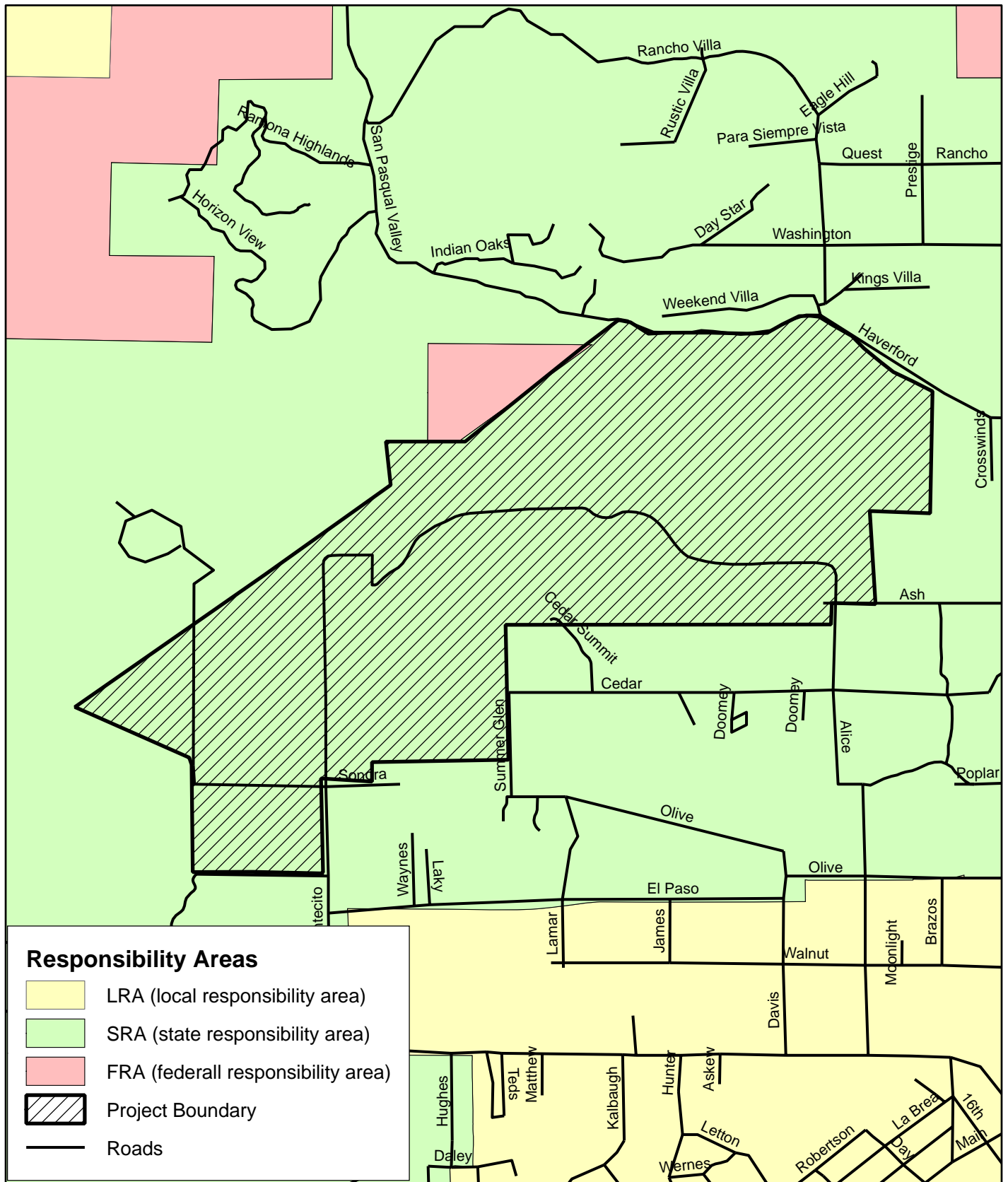


Figure 1
Regional Location Map

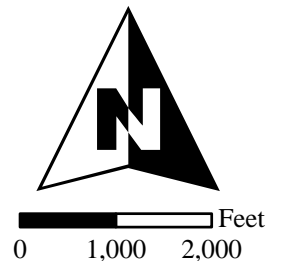






Source: <http://frap.cdf.ca.gov/>

Figure 3
Responsibility Area Map
Montecito Ranch Property



included within the biological open space preserve. The Project also would include four Homeowners' Association (HOA) maintenance lots, totaling 7.9 acres. No development is proposed for these lots; therefore, they are not included in the acreage for the development footprint. Because brush management would occur within the HOA maintenance lots, these lots are not included in the on-site biological open space preserve.

Access to the proposed Montecito Ranch development would be via: (1) Ash Street from Pine Street (SR 78) and (2) Montecito Way and Montecito Road from SR 67/Main Street. To accommodate Project traffic and improve traffic flow in the vicinity, the Project would widen Ash Street, construct Montecito Ranch Road through the Project site from Ash Street at the eastern SPA boundary to Montecito Way at the southern boundary, construct on-site residential streets connecting to Montecito Ranch Road, widen Montecito Way, and widen Montecito Road from Montecito Way to Main Street. In addition, to mitigate Project-related traffic impacts, improvements would be required to the intersections of Ash Street/Pine Street (SR 78), Main Street (SR 67)/Pine Street (SR 78), Montecito Road/Montecito Way, Main Street (SR 67)/Montecito Road, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road.

The proposed Montecito Ranch Road would include two lanes within a 118-foot right-of-way from Ash Street at the eastern site boundary to Lot 392 within Unit 2. From Lot 392 to the southern property boundary at the terminus of Montecito Way, Montecito Ranch Road would be a two-lane road within an 80-foot right-of-way. Bike lanes would be provided on both sides of the roadway. In addition, an eight-foot-wide meandering trail would be constructed within the right-of-way on the north side of Montecito Ranch Road along its entire length. All other on-site residential streets would be two-lane roadways within private road rights-of-way with County maintenance easements.

The Proposed Project would require construction of off-site utility improvements to provide water service to the Project. A water storage tank would be installed just west of the Project site within an adjacent property. The Proposed Project also would include the installation of a water booster pump station on a 10,000-square foot (0.2-acre) lot at the northwestern corner of the Montecito Road/Montecito Way intersection.

Purpose of the Fire Protection Plan

The purpose of this Fire Protection Plan (FPP) is to meet the requirements of the Ramona Fire Department regarding fire safety in the Wildland/Urban Interface for the Montecito Ranch Development, GPA04-013/R04-22 P04-045. Article 86 of the 2001 edition of the California Fire Code indicates that a Fire Protection Plan shall be required for all new development within the Wildland/Urban Interface.

The following Fire Protection Plan addresses water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space and vegetation management in accordance with the requirements of Article 86. When developing

mitigation measures the location, topography, geology, flammable vegetation and climate were taken into consideration.

2.0 WATER SUPPLY

The Proposed Project would require construction of off-site utility improvements to provide water service to the Project. One approximately 4,000-foot (0.75-mile) long, 12-inch polyvinyl chloride (PVC) water line would be extended northerly along Montecito Way to the Project site from the existing 24-inch main in Montecito Road. A second 12-inch PVC water line would be extended from the existing 14-inch line in Pine Street, approximately 4,000 feet (0.75 mile) westerly within Ash Street to the Project site. The proposed off-site connections would be installed during construction of the proposed improvements to Montecito Way and Ash Street. In addition, a water storage tank would be installed just west of the Project site within an adjacent property. This tank would hold 1.26 million gallons under Wastewater Management Option 1 and 0.91 million gallons under Option 2. (The decrease under Option 2 is due to decreased use of potable water for irrigation.) A pipeline would connect the water storage tank to the proposed pipeline within Montecito Way. This pipeline would be installed under a 20-foot-wide access road to the water storage tank. The water storage tank and associated pipelines and roadways would disturb approximately 2.2 acres off site. The Proposed Project also would include the installation of a water booster pump station on a 10,000-square foot (0.2-acre) lot at the northwestern corner of the Montecito Road/Montecito Way intersection.

The Ramona Fire Department letter, dated November 2, 2004, requires fire hydrants be installed every 1300' (feet) starting at the entrances of existing roads as they intersect with the newly constructed roads. The system shall be capable of supplying a minimum fire flow of 2500 gallons per minute at 20 psi. All components must meet the approval of the Ramona Fire Department. Fire hydrant plans will need to be submitted to the Ramona Municipal Water District Engineering and Fire Prevention offices for approval. As indicated on the Tentative Map, the proposed hydrants are located along the proposed roads and meet requirements in the following manner:

1. Hydrants are proposed at the terminus of cul-de-sacs on-site.
2. Hydrants are proposed approximately every 300' along proposed roads throughout the subdivision including Montecito Ranch Road.
3. Hydrants are proposed along the southern section of Montecito Ranch Road.

3.0 ACCESS AND RESPONSE TIME

Access to the proposed Montecito Ranch development would be via: (1) Ash Street from Pine Street (SR 78) and (2) Montecito Way and Montecito Road from SR 67/Main Street (Figure 2). To accommodate Project traffic and improve traffic flow in the vicinity, the

Project would widen Ash Street, construct Montecito Ranch Road through the Project site from Ash Street at the eastern SPA boundary to Montecito Way at the southern boundary, construct on-site residential streets connecting to Montecito Ranch Road, widen Montecito Way, and widen Montecito Road from Montecito Way to Main Street.

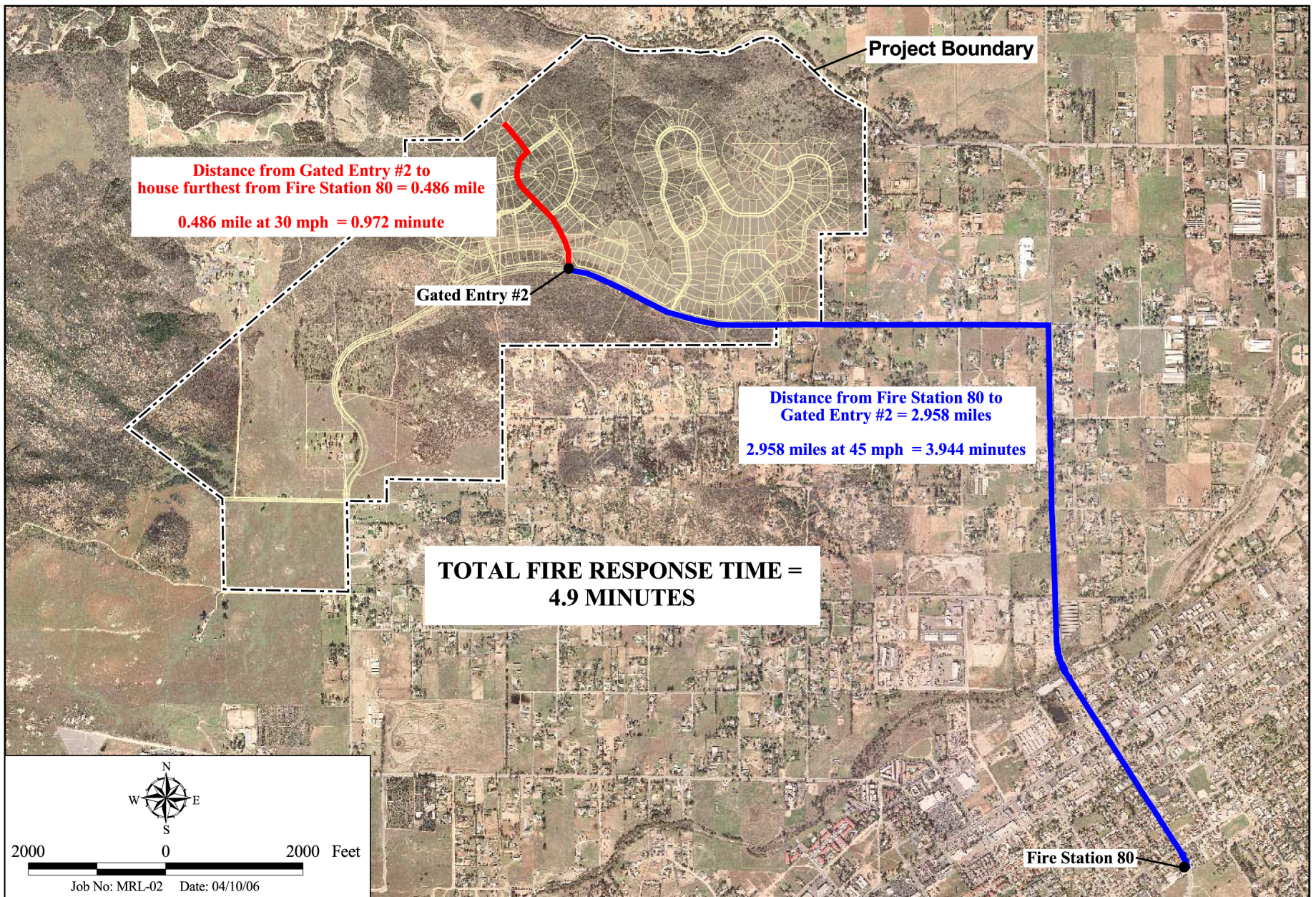
In addition, to mitigate Project-related traffic impacts, improvements would be required to the intersections of Ash Street/Pine Street (SR 78), Main Street (SR 67)/Pine Street (SR 78), Montecito Road/Montecito Way, Main Street (SR 67)/Montecito Road, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road.

Fire apparatus access roads are required in conformance with Section 902.2 of the County Fire Code and the Ramona Fire Department. Improvements are being performed to the off-site roads in order to meet current road standards. As indicated on the Tentative Map, the project meets the access requirements onsite by providing roads graded to 60' in width and cul de sacs with a 40' radius. Roads shall be constructed of Asphaltic concrete. Due to the width of the private roads they will not have to be designated as fire lanes and on street parking will be allowed. The proposed roads shall be named and street signs shall be provided in conformance with County of San Diego Department of Public Works Design Standard #DS13.

Private driveways shall be a minimum of 16 feet in width. If driveways exceed 150' in length then they will need to provide a fire truck turn around.

In conformance with Section 902.2.4.3 of the Consolidated Fire Code and the County Fire Code, all gated entries shall meet standards approved by the Chief. The four automatic gates on the access roads for the Montecito Ranch development shall be equipped with approved emergency key-operated switches overriding all commands and functions opening the gates. The key operated switch shall either be dual keyed or dual switches to facilitate access by law enforcement personnel. Additionally, all gates shall also be equipped with approved emergency traffic control-activating strobe light sensors which will activate the gate on the approach of the emergency apparatus with a battery backup or manual disconnect in case of power failure.

The Public Facility Element of the General Plan for the County of San Diego (as amended) , Section 11 – Fire Protection and Emergency Services establishes goals for the delivery of services. The goal to minimize the loss of lives from fires and medical emergencies is identified in the plan as a maximum travel time of 5 minutes for the land use category “Town” which is defined as single family residential lots of less than 2 acres and applies to Montecito Ranch. Helix Environmental performed a response time study and determined the response time to be 4.9 minutes from Station 80 through Gated Entrance 2, to the most distant residential parcel (Figure 4).



Fire Response Time

MONTECITO RANCH

Figure 4

4.0 ADDRESSES

Addresses shall be placed at appropriate locations and be plainly visible and legible from the street fronting the property from either direction of approach. Said numbers shall contrast with their background and shall meet the following minimum standards as to size: 4" high with a 3/8" stroke.

5.0 FIRE RESISTANCE AND FIRE PROTECTION SYSTEMS

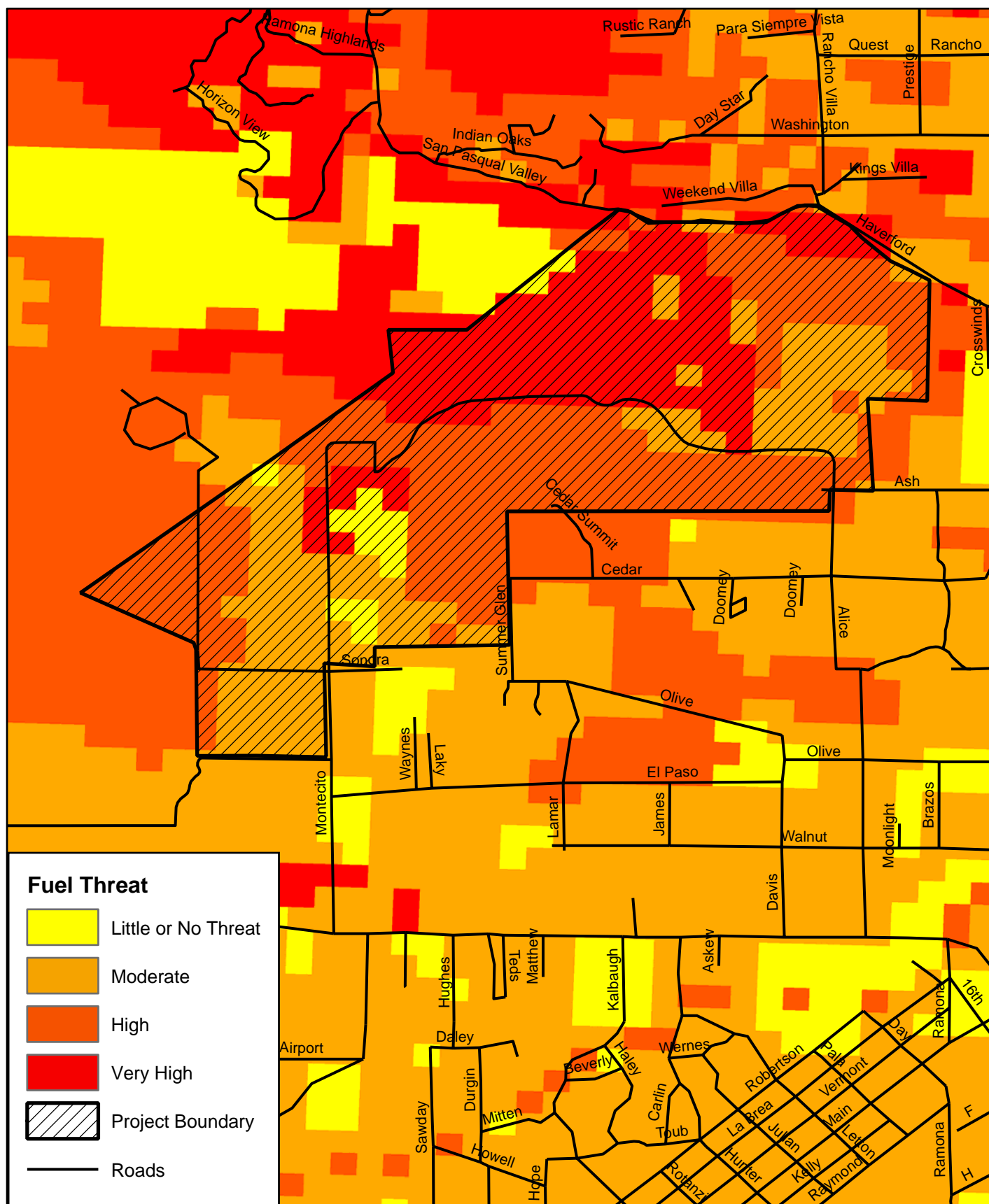
County Fire and Building Codes prescribe fire-resistive construction elements in the Wildland/Urban Interface. The project site is located in an area of low to very highly flammable vegetation as depicted by the California Department of Forestry Fuel Threat map (Figure 5) and therefore there is a greater potential for wildfire ignition of the structures based on terrain, vegetation and weather. As a result, the proposed structures shall meet the more restrictive category, enhanced fire resistive construction, regardless of fuel modification dimensions. In addition, enhanced fire resistive construction shall also apply to decks, carports, patio covers and similar structures, regardless of location relative to fuel modification zones.

Residences shall have automatic fire sprinkler systems installed per NFPA 13-D and the County of San Diego Requirements. This condition must be complied with prior to the issuance of the certificate of occupancy for each parcel so designated.

6.0 FIRE MODELING AND BRUSH MANAGEMENT

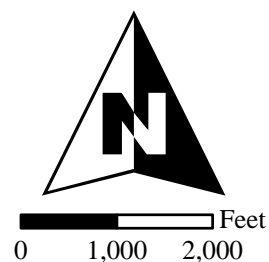
The project site contains eight native plant communities including: southern coast live oak riparian forest, open Engelmann oak woodland, dense Engelmann oak woodland, southern riparian scrub, disturbed wetland, Diegan coastal sage scrub, southern mixed chaparral, and chamise chaparral. Non-native grasslands, eucalyptus woodlands, and developed land also occur on site (Figure 6 – Biological Resources Map prepared by REC Consultants). As can be seen in Figure 6, part of most of these habitats are being retained within open space posing varying levels of threat to the proposed development. The majority of the project site falls within a fire threat ranking of high/very high although the site is bordered to the south, east, and northwest by development (Figure 7). The fire threat of area surrounding the project site ranges from little to no threat to very high threat (Figure 5).

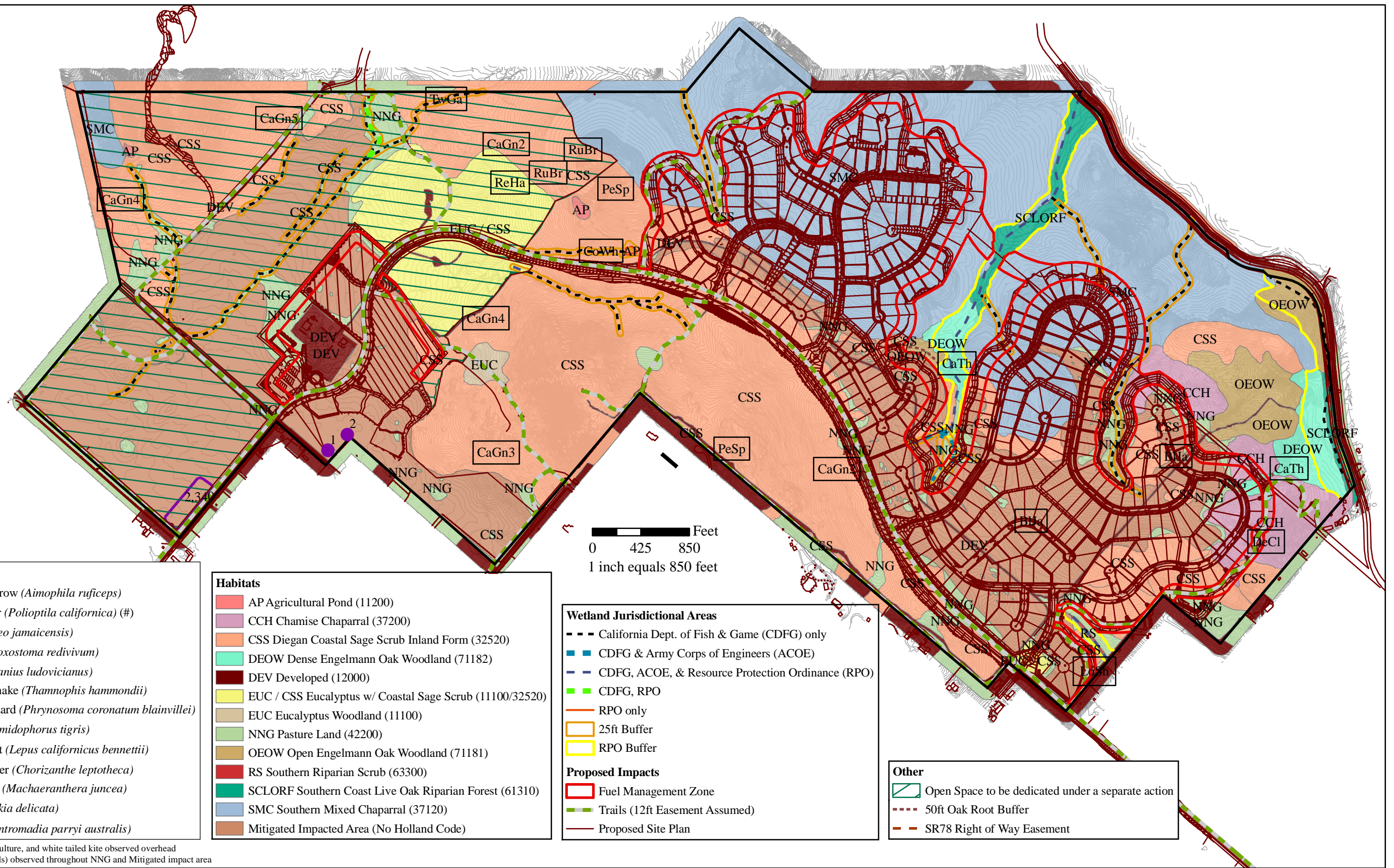
Several factors were taken into consideration when determining the brush management zone including topography, degree of exposure, lot size, and proximity to biological open space. In addition, the plan was developed with watershed protection and suitability of proposed plant species with regard to adjacency to biological open space as a consideration. Fire modeling was performed using BehavePlus 3.0 for the worst case



Source: <http://frap.cdf.ca.gov/>

Figure 5
Fire Threat Map
Montecito Ranch Property





IMPACT MAP
Montecito Ranch

Figure 6



Figure 7
Surrounding Land Use



scenario which is a Santa Ana weather condition. The results of the modeling are summarized here and included in Appendix A. The modeling for all of the parcels used a 70 mile an hour wind coming from 0, 45 and 90 degrees from north. In addition, the fuel moisture scenario used was D1L1, a very low moisture scenario which would be most applicable to the time of year Santa Ana's typically occur. Modeling was performed for parcels located along the northern and eastern edges of the subdivision where they are adjacent to open space and natural lands. These models would also be applicable to the remainder of the development where the parcels are adjacent to open space. Modeling was performed for six different habitat types found adjacent to the parcels. Fuel model 1 was used to represent the non-native grassland, fuel model 9 represents the open Engelmann oak woodland, fuel model 8 represents the dense Engelmann oak woodland, fuel model 10 represents the southern coast live oak riparian forest, fuel model 4 represents the southern mixed chaparral, and the SCAL 18 model best represents the coastal sage scrub habitat. The resulting flame lengths range from 2.3 for the dense Engelmann oak woodland to 99.9 for the southern mixed chaparral fuel model.

The fuel management zones shall be 100'-150' according to adjacency to high fuel threat vegetation. Parcels 3-17 shall have a fuel management zone of a minimum of 30 to 50 feet. Fuel Management zones are depicted in Figure 8 (map pocket). Parcels 3, 4 and 14 through 17 abut existing development off-site therefore the fuel management zone shall be 30 feet. This is an acceptable distance due to the minimal threat posed by the adjacent developed lands. Parcels 5-13 abut Lot 248 which is an open space lot totaling approximately 2.8 acres. The purpose of the open space lot is to provide the required avoidance to the Resource Protection Ordinance wetland and buffer in conformance with the Resource Protection Ordinance (RPO). The wetland is identified as southern riparian scrub which is surrounded primarily by non-native grasslands (Figure 6). Fuel model 1 for non-native grasslands indicates a flame length of 10 feet (Appendix A). Due to open space lot being small in size, 2.8 acres, and being composed of low fuel threat vegetation such as riparian scrub and non-native grasslands the fuel management zone shall be 50 feet. This amount should be adequate. A reduction from the minimum of 100 feet of fire clearing is allowed within the Consolidated Fire Code at the discretion of the Chief.

Fuel management zones adjacent to development and open space are divided into Zone A and Zone B which are depicted in Figure 8 (map pocket). Zone A shall be 100' around proposed pads and Zone B will be the remaining 50' in areas where the fuel management zone is greater than 100'. Zone A also includes the mandatory fire clearing adjacent to roadways. In addition there is a 200 foot wide Zone C at the head of the drainage. Zone C is composed of lots 246 and 427. The purpose of Zone C is to stop and/or slow a fire that may follow the natural vegetation down the drainage and between the proposed development. The habitats found in the drainage located within the RPO buffer and open space include southern coast live oak riparian forest habitat (SCLORF), open Engelmann oak woodland (OEOW), and dense Engelmann oak woodland (DEOW). The SCLORF is a closed-canopy woodland of Coast live oak (*Quercus agrifolia*) and contains a scattered understory of shrubs such as poison oak (*Toxicodendron diversilobum*), elderberry (*Sambucus mexicana*), California rose (*Rosa californica*), and California blackberry (*Rubus ursinus*). The OEOW on-site is evergreen woodland dominated by Engelmann

oak (*Quercus engelmannii*) with an understory of grassland species. The DEOW found within the RPO buffer is similar to open Engelmann oak woodland, but in the dense type, coast live oak is a significant constituent, and tree density is significantly greater.

The wastewater treatment facility located in the southwestern portion of the site (Lot 434) does not require fire clearing due to the location and size of the treatment ponds adjacent to open space. Additionally, no combustible structures greater than 250 square feet will be located on Lot 434. The zones shall be maintained as described below.

Zone A

Zone A will be 100' around proposed structures and will consist of landscape plantings that are maintained and irrigated so that they shall not create fire hazards near structures. The following measures will reduce fire hazards near buildings:

- Highly flammable plants adjacent to structures are prohibited.
- Except for prostrate varieties, acacias, cedars, cypress, eucalyptus, juniper, pines, rosemary and California pepper shall not be planted.
- Plants will only be selected from the County of San Diego "Acceptable Plants for a Defensible Space in Fire Prone Areas" included as Appendix B or other as approved by the Fire Marshal.
- No plants on the undesirable list included in Appendix C shall be planted.
- Trees shall not be planted closer to structures than the distance equal to the tree's mature canopy plus 10 feet. Tree canopies shall be separated by 20 feet.

Irrigation

Permanent irrigation shall be provided to ornamental plantings. Irrigation will conform to any applicable County Landscape Requirements.

Maintenance

Maintenance within this zone shall be performed year-round and include the following tasks:

- Prune and thin trees (Figures 9 and 10) around structures to decrease fuel volume, retain succulent growth and to provide adequate clearance between structures and plants.
- Tree branches overhanging roofs shall be removed.
- Trash and combustible debris shall be cleared from around structures, and removed from roofs and rain gutters.
- Irrigation systems will be maintained to ensure that they function properly and plantings are watered sufficiently to maintain succulent growth.

Thinning and Pruning

Figure 9, below illustrates how native trees retained and planted trees shall have a minimum canopy separation of 20 feet.

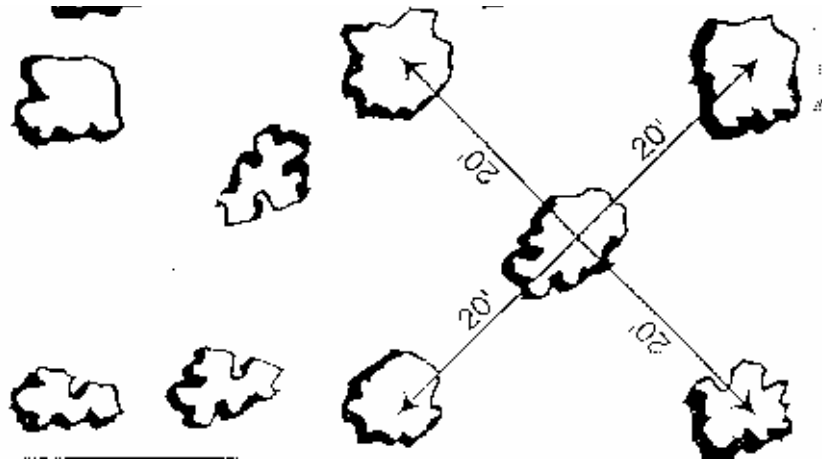


Figure 9. Thinned Trees

Pruning will further reduce the fuel load. Pruning shall be accomplished in the following manner:

- Individual trees and shrubs will be pruned to remove dead, dying and excessively twiggy growth. Figure 10, below illustrates the desired result of pruning.

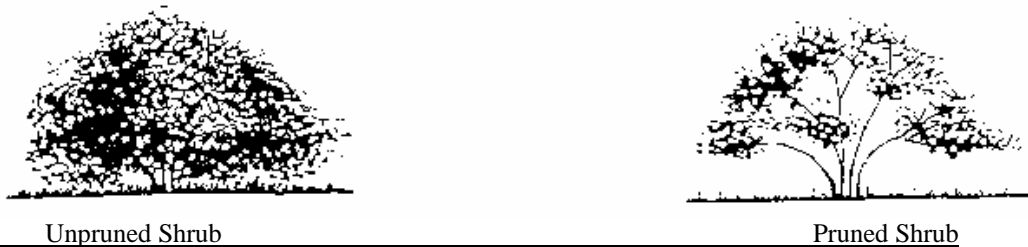


Figure 10. Pruning of Landscape Shrubs and Retained Trees

- Trees and larger tree form shrubs shall be pruned to provide clearance of three times the height of the understory plant material or six feet whichever is higher. Figure 11, below illustrates this requirement.

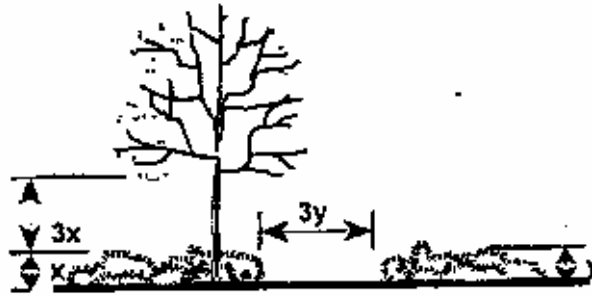


Figure 11. Pruning Trees and Tree Form Shrubs for Brush Management

Zone B

Zone B is the remaining 50' in areas where the fuel management zone is greater than 100'. Zone B can either be cleared in conformance with Zone A above, or selectively cleared and modified as described below. No noxious weed species will be planted within this zone due to the adjacency of the open space. For the purposes of this plan noxious weed species shall be those included on List A and B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999" (or more recent version), and the list of Undesirable Plants and Weeds, both of which are included in Appendix C.

Fuel Modification

If fuel modification is implemented to reduce fuel load then the following should sufficiently reduce fuel load to increase the fire safety of the overall parcels. Native plant species shall be selectively thinned by 50% and pruned by 40% to provide fuel discontinuity and a reduction in the fuel load. Figure 12, below illustrates the desired result of the thinning within this zone.

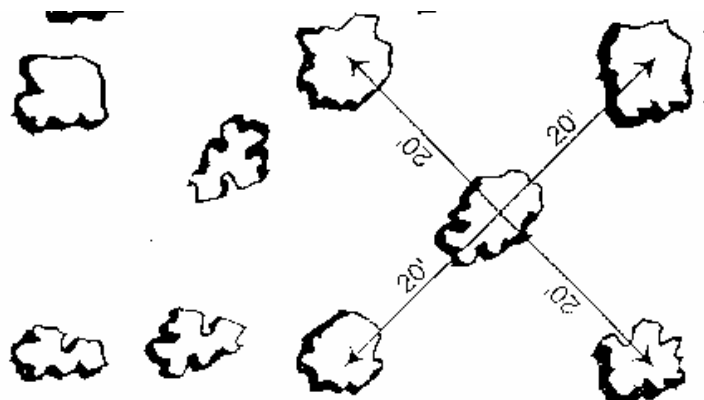


Figure 12. Natural Vegetation thinned by 50%.

Thinning

Thinning may be accomplished in the following manner:

- Retaining shrubs species in suitable densities will result in reducing erosion as a result of brush management due to their deep root systems. Pruning of the plants retained will reduce the fuel load.
- Plant species to be removed shall be cut at approximately 6 inches above the soil. In order to prevent erosion plants shall not be removed by their roots.
- Stumps of plants removed shall be painted with an herbicide to help prevent resprouting.
- Debris and trimmings produced by thinning and pruning shall be removed from the site.

Pruning

Pruning of the plants retained will further reduce the fuel load. The hard chaparral species targeted for retention can be shaped into attractive fire safe specimens by pruning dead and excessively twiggy growth. Pruning shall be accomplished in the following manner:

- Individual plants retained will be pruned to remove 40% of the flammable fuel. Pruning should remove dead, dying and excessively twiggy growth. Figure 13, below illustrates the desired result of pruning.



Figure 13. Pruning of Retained Vegetation

- Trees and larger tree form shrubs (i.e. manzanita and redshank) which are being retained shall be pruned to provide clearance of three times the height of the understory plant material or six feet whichever is higher. Figure 14, below illustrates this requirement.

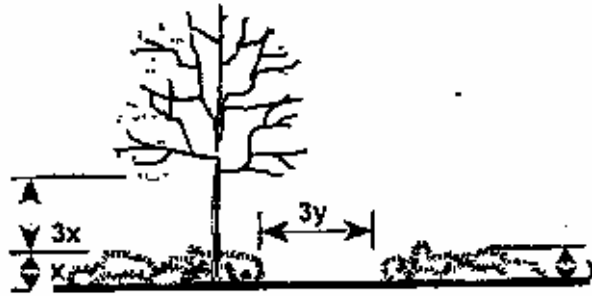


Figure 14. Pruning Trees and Tree Form Shrubs for Brush Management

- All plants retained including tree form shrubs shall be separated by a distance three times the height of the tallest adjacent plants (Figure 14).
- Debris and trimmings produced by thinning and pruning shall be removed from the site.

Zone C

Zone C is located at the head of the drainage and is composed of lots 246 and 247. The zone does not extend across the drainage due to the requirement to avoid impacts to RPO wetlands and buffers. The primary purpose of this zone is to stop and/or slow a fire to help prevent it from moving further south in the drainage between the developed lots. The fire clearing zone for those lots has been increased to further reduce the fuel threat to the structures. Both of these areas provide additional defensible space for the development. Zone C shall be maintained by performing thinning and pruning as described for Zone B above with the following changes:

- Natural vegetation shall be thinned to 30%
- The thinning shall be performed such that a straight erosion corridor is created to the maximum extent practicable, e.g. the removed shrubs should be carefully staggered
- This zone shall be maintained annually prior to the onset of fire season.
- In addition to the thinning and pruning any annual or weedy species that develop within the shrub openings shall be weed whipped to no higher than 3 inches.

7.0 RESPONSIBILITIES

The following section identifies the responsible parties for conformance and implementation of this plan.

Conformance

The ultimate responsibility for conformance with the fire protection plan lies with Home Owner's Association for Montecito Ranch. If for some reason no Home Owners Association is in place then the conformance shall default to the property owner as identified on the County Tax Assessors Maps. These clearing requirements shall be included in the CC&R's for the project.

Conformance Approval

Conformance approval is under the jurisdiction of the Ramona Fire Department.